Beginning on the 24th snow fell in the interior of the south-western districts. The snowfall was unusually heavy in northern New Mexico, southeastern Colorado, Indian Territory, and portions of western Texas. At Amarillo, in the Texas panhandle, a total fall of 20 inches was reported. The snow-storm was followed by a cold wave of two days duration in the Southwest, with a minimum temperature of 10° at Amarillo.

The heavy rains that attended the passage of this storm caused rapid rises in the rivers of the Southern States and the Ohio Valley, in anticipation of which general flood warnings had been issued.

# BOSTON FORECAST DISTRICT.

Heavy thunderstorms, a cold wave, a thaw, a heavy snow-storm, and gales of hurricane force occurred during the month. The most severe storm of the month was that of the 16-17th, when from 15 to 20 inches of snow fell over the district and gales of great force prevailed along the coast. Owing to the excellent work of the Weather Bureau, little if any damage resulted to shipping. The Bureau was highly commended by the press for giving timely warnings of the storm, thereby saving life and property.—J. W. Smith, Forecast Official.

## NEW ORLEANS FORECAST DISTRICT.

Storms occurred along the Gulf coast on the 11th, 16th, and 26th, for which timely warnings were issued. At 1 p. m. on the 15th, when the barometer was falling over southeast Texas, Louisiana, and western Mississippi, cold-wave warnings were ordered for Arkansas, northern Louisiana, and southern Texas. The cold-wave warnings were extended to southern Louisiana at night. Reports at 8 a. m. of the 16th showed freezing temperature to the Texas coast and indicated the severest weather of the winter so far, and warnings were sent out that the temperature would fall to 20° in the sugar region and to 24° to 26° along the Gulf coast. On Wednesday morning the temperature was about 24° to 26° along the Gulf coast and 20° in the sugar region. Seed cane and other products were protected generally.—I. M. Cline, Forecast Official.

#### CHICAGO FORECAST DISTRICT.

The cold wave of most importance during the month developed over the British Northwest on the 12th. However, it remained over the Northwestern States without decided movement until the 15th. During the 15th and 16th it extended over the eastern and southern portions of the district. movement of this cold wave was so tardy and irregular, causing gradually falling temperatures at many points, that warnings were issued only in the eastern and northwestern portions of the district, in advance of a moderate cold wave which was approaching from the Northwest. Three severe storms crossed the district during the month, which were attended by high winds and heavy snow north of their tracks. first appeared in the Southwest at the beginning of the month; it moved eastward and northeastward toward the Lake region, accompanied by heavy rain, snow, and sleet, reaching the latter section on the 3d and 4th. The second storm was first noticed February 5 on the southern California coast. It followed nearly the track of its predecessor and crossed the southern Lake region on the 7th and 8th. The third also moved from the Southwest. It first crossed eastward to the lower Mississippi Valley, reached the Lake region February 14 and 15, and was followed by a cold wave. Warnings were issued to all railroads and transportation companies in advance of these heavy snowstorms, and, although traffic was maintained only with great difficulty, the advance warnings pre-

pared the various interests for the emergency, and rendered them valuable assistance.

Warnings were issued during the month from time to time to all open ports on Lake Michigan in advance of approaching storms. Vessel interests were especially advised of the dangerous storms of the 3d-4th, 7-8th, 14-15th, and 28th. These four storms were exceptionally severe, but no casualties of any kind were reported.—H. J. Cox, Professor.

### DENVER FORECAST DISTRICT.

As a result of southwestern storms unusually cold weather was a feature throughout the district, especially in the northern part. In Colorado the month was not only the coldest February but also the coldest month in fifteen years. In anticipation of the development of a disturbance in the middle Plateau region, snow and decidedly lower temperatures were forecast on the morning of the 11th for the northern half of the district, and warnings of a cold wave were issued for Wvoming. The snowfall in northern Utah was very heavy. On the following morning warnings of the approach of severe cold weather were sent to southern Utah and western Colorado. Hemmed in by the Continental Divide and the additional barrier of a high area, reenforced from time to time, on the eastern slope, the low area remained practically stationary in northern Arizona until the afternoon of the 15th, a distribution of pressure that gave uninterrupted and abnormally cold weather in Utah, Wyoming, and Colorado until early in the morning of the 16th, when a depression began to develop in southeastern Wyoming. This low was attended by high winds in Wyoming and northeastern Colorado, uncovering the grass for range stock, and at the same time drifting the unpacked snow into railroad cuts. On many lines it was several days before it was possible to resume traffic. The fair and comparatively fine weather of the succeeding week was exceedingly fortunate for range stock which had been suffering severely from the cold and lack of feed, but where it was possible to heed the warnings by gathering and feeding no losses Snow in southeastern Colorado and New were incurred. Mexico was forecast for several days beginning with the 23d. The snow fall was unusually heavy in northern New Mexico and throughout southeastern Colorado.—F. H. Brandenburg, Forecast Official.

#### SAN FRANCISCO FORECAST DISTRICT.

The month was an unusually quiet one, as February is generally a stormy month on this coast. Generous rains prevailed at the beginning of the month over the southern and central portions of the State, with heavy snow in the mountains. Heavy frosts in southern California on February 3 were accurately forecast. Southeast storm warnings from San Francisco on February 3 were verified. Generous rains prevailed on February 4 in southern California and frost warnings were again verified. Southeast storm warnings were displayed along the coast on February 7 and were verified north of Point Conception. At Point Reyes the wind reached a velocity of 74 miles per hour from the southeast. Beginning about February 10 a succession of high areas prevailed over northern California and northern Nevada. A depression of moderate depth remained over Arizona and the valley of the Colorado for several days. Killing frosts occurred generally north of the Tehachapi on February 14, 15, 16, and 17 and temperatures below freezing were reported at many points in the citrus fruit belt of southern California. Ample warning of these frosts was given to the orange growers and extensive smudging was pursued. During the last decade of the month the weather was fair and pleasant with the exception of the 22d, when a small